



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/617,890

07/14/2003

Robert Theodorus Louis Maria Jansen

000771.00048

3405

22907

7590

06/05/2006

BANNER & WITCOFF

1001 G STREET N W

SUITE 1100

WASHINGTON, DC 20001

EXAMINER

THANGAVELU, KANDASAMY

ART UNIT

PAPER NUMBER

2123

DATE MAILED: 06/05/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/617,890

Applicant(s)

MARIA JANSEN, ROBERT  
THEODORUS LOUIS

Examiner

Kandasamy Thangavelu

Art Unit

2123

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 14 July 2003.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 14 July 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>12/12/03</u> . | 6) <input type="checkbox"/> Other: _____  |

### **DETAILED ACTION**

1. Claims 1-20 of the application have been examined.

#### ***Foreign Priority***

2. Acknowledgment is made of applicant's claim for foreign priority based on an application 02077858.5 filed in Europe on July 12, 2002. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

#### ***Information Disclosure Statement***

3. Acknowledgment is made of the information disclosure statements filed on December 12, 2003 together with a list of patents and papers. The patents and papers have been considered.

#### ***Drawings***

4. The drawings submitted on July 14, 2003 are accepted.

#### ***Abstract***

5. The abstract is objected to because of the following informalities:

Art Unit: 2123

Lines 9-10, "to access the information to information " appears to be incorrect and it appears that it should be "to access the information".

Appropriate correction is required.

### ***Specification***

6. The disclosure is objected to because of the following informalities:

Page 3, Lines 12-13, "that the system is the system comprises " appears to be incorrect and it appears that it should be "that the system comprises".

Page 4, Lines 10-11, "To take account of this effect comprises more than one client computer " appears to be incorrect and it appears that it should be "The system comprises more than one client computer".

Page 7, Lines 12-14, "A user is provided ... can set its own authorization" appears to be incorrect and it appears that it should be "A user is provided ... can set his own authorization".

Page 11, Lines 11-13, "its own authorization ... its appointments" appears to be incorrect and it appears that it should be "his own authorization ... his appointments".

Page 11, Line 29, "its own web-based location" appears to be incorrect and it appears that it should be "his own web-based location".

Page 12, Lines 26-27, "to blocks their entrance" appears to be incorrect and it appears that it should be "to block their entrance".

Page 14, Lines 2-3, "The user can familiarize itself" appears to be incorrect and it appears that it should be "The user can familiarize himself".

Page 27, Line 3, "where is distinguished" appears to be incorrect and it appears that it should be "who are distinguished".

Appropriate corrections are required.

### ***Claim Rejections - 35 USC § 102***

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in-

(1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effect under this subsection of a national application published under section 122(b) only if the international application designating the United States was published under Article 21(2)(a) of such treaty in the English language; or

(2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that a patent shall not be deemed filed in the United States for the purposes of this subsection based on the filing of an international application filed under the treaty defined in section 351(a).

8. Claims 1-6 and 8 are rejected under 35 U.S.C. 102(e) as being anticipated by **Hubrecht et al.** (U.S. Patent Application 2003/0117397).

8.1 **Hubrecht et al.** teaches systems and methods for generating virtual reality (VR) files for complex virtual environments. Specifically as per claim 1, **Hubrecht et al.** teaches a system for access, exchange, analysis and design of information relating to industrial plants having a

Art Unit: 2123

substantial complexity (Fig. 26B; Page 1, Para 0002, L3-7; Para 0004, L5-13; Para 0007, L1-15; Para 0011, L2-8; Page 2, Para 0014, L2-10; Page 3, Para 0052, L6-10; Page 4, Para 0061, L3-9), the system comprising:

- at least a set of mutually connected computers containing the information (Fig. 2; Page 6, Para 0075 and Para 0076); and

- at least a client computer functioning as a user station to enable the user to access the information (Fig. 2; Page 6, Para 0075 and Para 0076);

wherein the system is adapted to create a virtual reality for the user on the client computer representing the premises of the industrial plant and that access to the information is obtained through objects in the virtual reality which bear a relation to the information (Abstract, L1-12; Page 1, Para 0002, L3-7; Para 0004, L5-13; Para 0007, L1-15).

Per claim 2: **Hubrecht et al.** teaches that at least one of the set of computers is adapted to function as a server computer and that the client computer is remote from the server computer (Fig. 2; Page 6, Para 0075 and Para 0076).

Per claim 3: **Hubrecht et al.** teaches that the client computer and the server computer are connected through the internet (Fig. 2; Page 6, Para 0076).

Per claim 4: **Hubrecht et al.** teaches that the system is adapted to represent a user through the figure of a human being (Page 7, Para 0083, L6-18).

Per claim 5: **Hubrecht et al.** teaches that in the virtual reality representation information access points are represented and the information access points give access to information of the kind obtainable at the information access points in real life which are represented (Page 1, Para 0007, L1-13; Page 7, Para 0083, L6-18).

Per claim 6: **Hubrecht et al.** teaches system comprising more than one client computer, wherein the users of each client computer are represented by the figure of a human being and that the users communicate and exchange information by transfer of data (Fig. 2; Page 6, Para 0075 and Para 0076; Page 7, Para 0083, L6-18).

Per claim 8: **Hubrecht et al.** teaches that the system is adapted to access a database providing information relating to an object in the industrial plant when the person in the virtual reality representation of the plant clicks on the object to access the information (Page 1, Para 0004, L5-13; Page 7, Para 0083, L1-18; Page 11, Para 0117, L18-20).

### ***Claim Rejections - 35 USC § 103***

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains.

Art Unit: 2123

10. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35

U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

11. Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over **Hubrecht et al.** (U.S. Patent Application 2003/0117397) in view of **Glezerman** (U.S. Patent Application 2003/0207237).

11.1 As per claim 7, **Hubrecht et al.** teaches the system as claimed in Claim 6. **Hubrecht et al.** does not expressly teach that the system comprises means to make appointments between users. **Glezerman** teaches that the system comprises means to make appointments between users (Page 3, Para 0025, L11-16). It would have been obvious to one of ordinary skill in the art at the time of Applicant's invention to modify the system of **Hubrecht et al.** with the system of **Glezerman** that included the system comprising means to make appointments between users, because that would allow the trainer to schedule educational and training tasks and require that any scheduled tasks be performed in order and schedule delivery of messages that appear on the displays at the client machines between activities (Page 3, Para 0025, L11-16).



Art Unit: 2123

12. Claims 9 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Hubrecht et al.** (U.S. Patent Application 2003/0117397) in view of **Glezerman** (U.S. Patent Application 2003/0207237), and further in view of **Jung** (U.S. Patent Application 2003/0208342).

12.1 As per claims 9 and 10, **Hubrecht et al.** and **Glezerman** teach the system of claim 7. **Hubrecht et al.** and **Glezerman** do not expressly teach that the system is adapted to provide technical information relating to the object clicked upon; and the technical information comprises technical drawings. **Jung** teaches that the system is adapted to provide technical information relating to the object clicked upon (Abstract; Page 1, Para 0011, L2-4; Page 1, Para 0014); and the technical information comprises technical drawings (Abstract, L2-7; Page 1, Para 0001, L4-7). It would have been obvious to one of ordinary skill in the art at the time of Applicant's invention to modify the system of **Hubrecht et al.** and **Glezerman** with the system of **Jung** that included the system being adapted to provide technical information relating to the object clicked upon; and the technical information comprising technical drawings, because that would allow providing the building and construction information over the network, by extracting data from computerized drawings and generating information based on extracted data and reference data from a database (Page 1, Para 0001); and the time required for producing a construction specification for a structure starting from the drawings can be reduced substantially<sup>0</sup> and optimization of the design can be greatly facilitated (Page 2, Para 0026, L2-7).

Art Unit: 2123

13. Claims 11 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Hubrecht et al.** (U.S. Patent Application 2003/0117397) in view of **Jayaram et al.** (U.S. Patent Application 2002/0123812).

13.1 As per claim 11, **Hubrecht et al.** teaches the system as claimed in Claim 1. **Hubrecht et al.** teaches that the virtual reality representation allows the user objects in the industrial plant to simulate maintenance and repair actions (Page 1, Para 0007, L1-13; Page 3, Para 0054, L4-10). **Hubrecht et al.** does not expressly teach that the virtual reality representation allows the user objects in the industrial plant to take apart to pieces and to reassemble to simulate maintenance and repair actions. **Jayaram** teaches that the virtual reality representation allows the user objects in the industrial plant to take apart to pieces and to reassemble to simulate maintenance and repair actions (Page 1, Para 0002, L2-5; Page 1, Para 0009, L1-4 and L12-17; Page 2, Para 0010, L1-11; Page 4, Para 0079, L2-4). It would have been obvious to one of ordinary skill in the art at the time of Applicant's invention to modify the system of **Hubrecht et al.** with the system of **Jayaram** that included the virtual reality representation allowing the user objects in the industrial plant to take apart to pieces and to reassemble to simulate maintenance and repair actions, because that would allow employing a virtual reality environment with a computer aided design system to simulate virtual assembly of products (Page 1, Para 0002, L3-5); and an engineer could perform the assembly and disassembly intuitively in a virtual environment using VR hardware and software; the information generated in virtual assembly could be used for precise assembly planning and verification in real physical world for any product (Page 1, Para 0009, L12-17).

Per claim 12: **Hubrecht et al.** teaches that the system comprises reference data relating to the actions and that the system is adapted to compare the actions executed by the client with the reference data and to report about the rate of coherence between the executed actions and the actions of which the system contains reference data (Page 7, Para 0083, L1-18; Page 3, Para 0054, L4-10).

14. Claims 13, 14 and 16-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Hubrecht et al.** (U.S. Patent Application 2003/0117397) in view of **Carlson et al.** (U.S. Patent Application 2003/0007000).

14.1 As per claim 13, **Hubrecht et al.** teaches the system as claimed in Claim 1. **Hubrecht et al.** does not expressly teach that the system is adapted to enable a user to design and draw conduits between the objects in the industrial site wherein the conduits are represented in the virtual reality representation of the industrial plant and that the conduits can be automatically and interactively positioned. **Carlson et al.** teaches that the system is adapted to enable a user to design and draw paths between the sites in a telecommunication network wherein the paths are represented in the virtual reality representation of the telecommunication network and that the routes can be automatically and interactively positioned (Fig. 9; Page 2, Para 0031; page 2, Para 0031, L5-8; Page 4, Para 0050, L2-16; Page 4, Para 0054, L2-7). It is inherent that designing and drawing of paths between the sites in a telecommunication network wherein the paths are represented in the virtual reality representation of the telecommunication network and the routes are automatically and interactively positioned is analogous to designing and drawing conduits

Art Unit: 2123

between the objects in the industrial site wherein the conduits are represented in the virtual reality representation of the industrial plant and the conduits are automatically and interactively positioned. Therefore an analogous system can be used to design and draw conduits between the objects in the industrial site wherein the conduits are represented in the virtual reality representation of the industrial plant and that the conduits can be automatically and interactively positioned. It would have been obvious to one of ordinary skill in the art at the time of Applicant's invention to modify the system of **Hubrecht et al.** with the system of **Carlson et al.** that included the system being adapted to enable a user to design and draw conduits between the objects in the industrial site wherein the conduits are represented in the virtual reality representation of the industrial plant and that the conduits can be automatically and interactively positioned, because that would allow a user to view the conduit network sites, routes and segments (Page 4, Para 0054, L5-7); and create one or more alternative transmission systems between any two end points (Page 5, Para 0062, L5-7).

Per claim 14: **Hubrecht et al.** does not expressly teach that the design module is adapted to give automatically determine a preferred routing of conduits without the need for human intervention d. **Carlson et al.** teaches that the design module is adapted to give automatically determine a preferred routing of conduits without the need for human intervention (Page 5, Para 0062).

14.2 As per claims 16 and 18-20, **Hubrecht et al.** teaches the system as claimed in Claims 1 and 2-4. **Hubrecht et al.** does not expressly teach that the system is adapted to enable the user to

Art Unit: 2123

design the locations of the objects of the industrial plant, their interrelations and locations of conduits connected to the objects, wherein during the design procedure the designed objects are represented in the virtual reality representation. **Carlson et al.** teaches that the system is adapted to enable the user to design the locations of the sites of a telecommunication network, their interrelations and locations of paths connected to the sites, wherein during the design procedure the designed sites are represented in the virtual reality representation (Fig. 9; Page 2, Para 0031; page 2, Para 0031, L5-8; Page 4, Para 0050, L2-16; Page 4, Para 0054, L2-7). It is inherent that designing the locations of the sites of a telecommunication network, their interrelations and locations of paths connected to the sites are analogous to designing the locations of the objects of the industrial plant, their interrelations and locations of conduits connected to the objects. Therefore an analogous system can be used to enable the user to design the locations of the objects of the industrial plant, their interrelations and locations of conduits connected to the objects, wherein during the design procedure the designed objects are represented in the virtual reality representation.

Per claim 17: **Hubrecht et al.** teaches that the technical information of the objects is retrieved through databases contained in a computer of the set of computers (Page 1, Para 0004, L5-13; Page 7, Para 0083, L1-18; Page 11, Para 0117, L18-20).

15. Claim 15 is rejected under 35 U.S.C. 103(a) as being unpatentable over **Hubrecht et al.** (U.S. Patent Application 2003/0117397) in view of **Carlson et al.** (U.S. Patent Application 2003/0007000), and further in view of **Goodman et al.** (U.S. Patent 7,020,697).

15.1 As per claim 15, **Hubrecht et al.** and **Carlson et al.** teach the system of claim 13.

**Hubrecht et al.** and **Carlson et al.** do not expressly teach that the design module is adapted to automatically detect conflicts and to provide solutions therefore. **Goodman et al.** teaches that the design module is adapted to automatically detect conflicts and to provide solutions therefore (CL50, L1-5). It would have been obvious to one of ordinary skill in the art at the time of Applicant's invention to modify the system of **Hubrecht et al.** and **Carlson et al.** with the system of **Goodman et al.** that included the design module being adapted to automatically detect conflicts and to provide solutions therefore, because that would allow the conflicts to be resolved through some kind of dialog or discussion between the users (CL50, L1-5).

### ***Conclusion***


16. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dr. Kandasamy Thangavelu whose telephone number is 571-272-3717. The examiner can normally be reached on Monday through Friday from 8:00 AM to 5:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Paul Rodriguez, can be reached on 571-272-3753. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to TC 2100 Group receptionist: 571-272-2100.

Art Unit: 2123

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



K. Thangavelu  
Art Unit 2123  
May 27, 2006